

Contents lists available at Sjournals  
**Scientific Journal of Review**  
Journal homepage: [www.Sjournals.com](http://www.Sjournals.com)



## Original article

# Correlation between Sargent jump and 45 meter dash in the estimation of the anaerobic power

**Sana Shokri<sup>a</sup>, Sakineh Varmazyar<sup>b,\*</sup>, Payam Heydari<sup>a</sup>, Hajar Dazi<sup>a</sup>**

<sup>a</sup>MSc student in Department of Occupational Health Engineering, Faculty of Health, Qazvin University of Medical Sciences, Qazvin, Iran.

<sup>b</sup>Associate professor in Department of Occupational Health Engineering, Faculty of Health, Qazvin University of Medical Sciences, Qazvin, Iran.

\*Corresponding author; Associate professor in Department of Occupational Health Engineering, Faculty of Health, Qazvin University of Medical Sciences, Qazvin, Iran.

## ARTICLE INFO

### Article history

Received 11 April 2016

Accepted 10 May 2016

Available online 15 May 2016

Internet screening 14 April 2016

English editing 7 May 2016

Quality control 10 May 2016

### Keywords,

Physical fitness

Anaerobic power

Sargent jump

Run 45 meters

## ABSTRACT

Mental and physical health of students is important objects of every society, because their health ensures scientific progression and development. The current study was aimed to estimate the anaerobic power in two ways Sargent jump and run 45 meters and the factors influencing them among selected male and female students of Qazvin University of Medical Sciences. This was an analytical cross-sectional study among 110 students who participated in the study that were selected randomly. To measure anaerobic power, Sargent jump and run 45-meter test was used. In order to analyze the factors affecting anaerobic power test, independent t-test and ANOVA with a significance level of 0.05 was conducted, and also to examine the relationship between two tests Pearson correlation test was used. Data analysis showed that sex, weight, height and body mass index in Sargent jump and sex and weight in 45 meters test are significant. Pearson correlation test between anaerobic power test results are positive and significant relationship ( $r = 0.83$  and  $P < 0.001$ ), respectively. The overall results of this study showed a high correlation between the two methods. Also, variables such as sex and weight in both tests showed significant association in the mean anaerobic power.